

Claims

1. A method for detecting overlapping flat mailpieces in a transport path for mailpieces that are transported vertically in succession, comprising the following steps:

- 5 - arranging at least two transport stages (1, 2 or 2, 7, 8) successively in the transport path, the nominal speed of the following transport stage (2 or 7, 8) in the transport direction in each case being higher than the nominal speed of the transport stage (1 or 2) preceding it,
- 10 - measuring the speed of the transported mailpieces (5, 6) by scanning said items in front of a following transport stage (2 or 7, 8) for a maximum distance that is shorter than the shortest agreed mailpiece length by means of two sensors (3, 4, 9, 10) that are arranged on either side of the transport path,
- 15 - evaluating the measured results if a sensor (3, 4, 9, 10) measures a speed that deviates only slightly by a defined small value from the nominal speed of the following transport stage (2 or 7, 8),
 - detecting an overlap if the simultaneously measured speeds of the two sensors (3, 4 or 9, 10) are different and the smaller measured speed deviates from the greater speed by a defined value.

20 2. The method as claimed in claim 1, characterized in that the sensors (3, 4, 9, 10) for measuring the speed of the mailpieces are embodied as locally fixed rollers or belts running on the mailpiece surfaces, the rotational speeds of said rollers or belts serving as a measure for the speed of the mailpieces.

25 3. The method as claimed in claim 1, characterized in that the evaluation of the measured results does not start until after a specified delay time after the change in speed measured by a sensor (3, 4) to a speed deviating from the nominal speed of the following transport stage (2) only by a specified small value.

30 4. An arrangement for detecting overlapping flat mailpieces in a transport path for mailpieces that are transported vertically in succession, having:

- at least two transport stages (1, 2 or 2, 7, 8) in succession in the transport path, with the nominal speed of the following transport stage (2 or 7, 8) in the

transport direction in each case being higher than the nominal speed of the transport stage (1 or 2) preceding it,

5 - two sensors (3, 4, 9, 10) arranged on either side of the transport path for measuring the speed of the transported mailpieces (5, 6) by scanning said items in front of a following transport stage (2 or 7, 8) in each case for a maximum distance that is shorter than the shortest agreed mailpiece length, and

10 - a device for evaluating the measured results if a sensor (3, 4, 9, 10) measures a speed that deviates from the nominal speed of the following transport stage (2, 7, 8) only by a defined small value, such that an overlap is detected if the simultaneously measured speeds of the two sensors (3, 4 or 9, 10) are different and the smaller measured speed deviates from the greater speed by a specified value.

5. The arrangement as claimed in claim 4, characterized in
15 that the sensors (3, 4, 9, 10) for measuring the speed of the mailpieces are embodied as locally fixed rollers or belts running on the mailpiece surfaces, the rotational speeds of said rollers or belts serving as a measure for the speed of the mailpieces.